_M. Pa__

1646

ENTERED

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RAW SEQUENCE LISTING              DATE: 05/04/2000
PATENT APPLICATION:   US/09/199,874B    TIME: 06:18:47

Input Set : A:\Sequence
Output Set: N:\CRF3\05042000\I199874B.raw

 4 <110> APPLICANT: Segre, Gino V.
 5        Kronenberg, Henry M.
 6        Abou-Samra, Abdul-Badi
 7        Juppner, Harald
 8        Potts, Jr., John T.
 9        Schipani, Ernestina
11 <120> TITLE OF INVENTION: PARATHYROID HORMONE RECEPTOR AND DNA ENCODING SAME
13 <130> FILE REFERENCE: 00786/071005
15 <140> CURRENT APPLICATION NUMBER: US 09/199,874B
16 <141> CURRENT FILING DATE: 1998-11-24
18 <150> PRIOR APPLICATION NUMBER: US 08/471,494
19 <151> PRIOR FILING DATE: 1995-06-06
21 <160> NUMBER OF SEQ ID NOS: 21
23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 1862
27 <212> TYPE: DNA
28 <213> ORGANISM: Didelphoidea
30 <220> FEATURE:
31 <221> NAME/KEY: CDS
32 <222> LOCATION: (98)...(1642)
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36 gtggccccgt tggactcggc cctagggaac ggcggcg atg gga gcg ccc cgg atc    115
37                                          Met Gly Ala Pro Arg Ile
38                                           1               5
40 tcg cac agc ctt gcc ttg ctc ctc tgc tgc tcc gtg ctc agc tcc gtc    163
41 Ser His Ser Leu Ala Leu Leu Leu Cys Cys Ser Val Leu Ser Ser Val
42              10              15                  20
44 tac gca ctg gtg gat gcc gat gat gtc ata acg aag gag gag cag atc    211
45 Tyr Ala Leu Val Asp Ala Asp Asp Val Ile Thr Lys Glu Glu Gln Ile
46          25                  30                  35
48 att ctt ctg cgc aat gcc cag gcc cag tgt gag cag cgc ctg aaa gag    259
49 Ile Leu Leu Arg Asn Ala Gln Ala Gln Cys Glu Gln Arg Leu Lys Glu
50      40                  45                  50
52 gtc ctc agg gtc cct gaa ctt gct gaa tct gcc aaa gac tgg atg tca    307
53 Val Leu Arg Val Pro Glu Leu Ala Glu Ser Ala Lys Asp Trp Met Ser
54 55                  60                  65                  70
56 agg tct gca aag aca aag aag gag aaa cct gca gaa aag ctt tat ccc    355
57 Arg Ser Ala Lys Thr Lys Lys Glu Lys Pro Ala Glu Lys Leu Tyr Pro
58                  75                  80                  85
60 cag gca gag gag tcc agg gaa gtt tct gac agg agc cgg ctg cag gat    403
61 Gln Ala Glu Glu Ser Arg Glu Val Ser Asp Arg Ser Arg Leu Gln Asp
62              90                  95                  100
64 ggc ttc tgc cta cct gag tgg gac aac att gtg tgc tgg cct gct gga    451
65 Gly Phe Cys Leu Pro Glu Trp Asp Asn Ile Val Cys Trp Pro Ala Gly
66          105                 110                 115
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RAW SEQUENCE LISTING              DATE: 05/04/2000
PATENT APPLICATION:  US/09/199,874B     TIME: 06:18:47

       Input Set : A:\Sequence
       Output Set: N:\CRF3\05042000\I199874B.raw

68 gtg ccc ggc aag gtg gtg gcc gtg ccc tgc ccc gac tac ttc tac gac      499
69 Val Pro Gly Lys Val Val Ala Val Pro Cys Pro Asp Tyr Phe Tyr Asp
70     120                 125                 130
72 ttc aac cac aaa ggc cga gcc tat cgg cgc tgt gac agc aat ggc agc      547
73 Phe Asn His Lys Gly Arg Ala Tyr Arg Arg Cys Asp Ser Asn Gly Ser
74 135                 140                 145                 150
76 tgg gag ctg gtg cct ggg aac aac cgg aca tgg gcg aat tac agc gaa      595
77 Trp Glu Leu Val Pro Gly Asn Asn Arg Thr Trp Ala Asn Tyr Ser Glu
78                 155                 160                 165
80 tgt gtc aag ttt ctg acc aac gag acc cgg gaa cgg gaa gtc ttt gat      643
81 Cys Val Lys Phe Leu Thr Asn Glu Thr Arg Glu Arg Glu Val Phe Asp
82             170                 175                 180
84 cgc ctc gga atg atc tac act gtg ggc tac tcc atc tct ctg ggc tcc      691
85 Arg Leu Gly Met Ile Tyr Thr Val Gly Tyr Ser Ile Ser Leu Gly Ser
86             185                 190                 195
88 ctc act gtg gct gtg ctg att ctg ggt tac ttt agg agg tta cat tgc      739
89 Leu Thr Val Ala Val Leu Ile Leu Gly Tyr Phe Arg Arg Leu His Cys
90     200                 205                 210
92 acc cga aac tac att cac atg cat ctc ttc gtg tcc ttt atg ctc cgg      787
93 Thr Arg Asn Tyr Ile His Met His Leu Phe Val Ser Phe Met Leu Arg
94 215                 220                 225                 230
96 gct gta agc atc ttc atc aag gat gct gtg ctc tac tcg ggg gtt tcc      835
97 Ala Val Ser Ile Phe Ile Lys Asp Ala Val Leu Tyr Ser Gly Val Ser
98                 235                 240                 245
100 aca gat gaa atc gag cgc atc acc gag gag gag ctg agg gcc ttc aca     883
101 Thr Asp Glu Ile Glu Arg Ile Thr Glu Glu Glu Leu Arg Ala Phe Thr
102                 250                 255                 260
104 gag cct ccc cct gct gac aag gcg ggt ttt gtg ggc tgc aga gtg gcg     931
105 Glu Pro Pro Pro Ala Asp Lys Ala Gly Phe Val Gly Cys Arg Val Ala
106     265                 270                 275
108 gta acc gtc ttc ctt tac ttc ctg acc acc aac tac tac tgg atc ctg     979
109 Val Thr Val Phe Leu Tyr Phe Leu Thr Thr Asn Tyr Tyr Trp Ile Leu
110     280                 285                 290
112 gtg gaa ggc ctc tac ctt cac agc ctc atc ttc atg gct ttt ttc tct    1027
113 Val Glu Gly Leu Tyr Leu His Ser Leu Ile Phe Met Ala Phe Phe Ser
114 295                 300                 305                 310
116 gag aaa aag tat ctc tgg ggt ttc aca tta ttt ggc tgg ggc ctc cct    1075
117 Glu Lys Lys Tyr Leu Trp Gly Phe Thr Leu Phe Gly Trp Gly Leu Pro
118                 315                 320                 325
120 gcc gtg ttt gtc gct gtg tgg gtg acc gtg agg gct aca ctg gcc aac    1123
121 Ala Val Phe Val Ala Val Trp Val Thr Val Arg Ala Thr Leu Ala Asn
122             330                 335                 340
124 act gag tgc tgg gac ctg agt tcg ggg aat aag aaa tgg atc ata cag    1171
125 Thr Glu Cys Trp Asp Leu Ser Ser Gly Asn Lys Lys Trp Ile Ile Gln
126             345                 350                 355
128 gtg ccc atc ctg gca gct att gtg gtg aac ttt att ctt ttt atc aat    1219
129 Val Pro Ile Leu Ala Ala Ile Val Val Asn Phe Ile Leu Phe Ile Asn
130     360                 365                 370
132 ata atc aga gtc ctg gct act aaa ctc cgg gag acc aat gca ggg aga    1267
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RAW SEQUENCE LISTING   DATE: 05/04/2000
PATENT APPLICATION: US/09/199,874B   TIME: 06:18:47

Input Set : A:\Sequence
Output Set: N:\CRF3\05042000\I199874B.raw

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133 Ile Ile Arg Val Leu Ala Thr Lys Leu Arg Glu Thr Asn Ala Gly Arg
134 375                 380                 385                 390
136 tgt gac acg agg caa cag tat aga aag ctg ctg aag tcc acg cta gtc    1315
137 Cys Asp Thr Arg Gln Gln Tyr Arg Lys Leu Leu Lys Ser Thr Leu Val
138                     395                 400                 405
140 ctc atg ccg cta ttt ggg gtg cac tac atc gtc ttc atg gcc acg ccg    1363
141 Leu Met Pro Leu Phe Gly Val His Tyr Ile Val Phe Met Ala Thr Pro
142                 410                 415                 420
144 tac aca gaa gta tca ggg att ctt tgg caa gtc caa atg cac tat gaa    1411
145 Tyr Thr Glu Val Ser Gly Ile Leu Trp Gln Val Gln Met His Tyr Glu
146             425                 430                 435
148 atg ctc ttc aat tca ttc cag gga ttt ttc gtt gcc att ata tac tgt    1459
149 Met Leu Phe Asn Ser Phe Gln Gly Phe Phe Val Ala Ile Ile Tyr Cys
150     440                 445                 450
152 ttc tgc aat gga gag gta caa gca gag atc aag aag tca tgg agc cga    1507
153 Phe Cys Asn Gly Glu Val Gln Ala Glu Ile Lys Lys Ser Trp Ser Arg
154 455                 460                 465                 470
156 tgg acc ctg gcc ttg gac ttc aag cgg aag gcc cgg agt ggc agc agt    1555
157 Trp Thr Leu Ala Leu Asp Phe Lys Arg Lys Ala Arg Ser Gly Ser Ser
158                 475                 480                 485
160 acc tac agc tat ggc ccc atg gtg tca cat aca agt gtc acc aat gtg    1603
161 Thr Tyr Ser Tyr Gly Pro Met Val Ser His Thr Ser Val Thr Asn Val
162             490                 495                 500
164 gga cct cga ggg ggc tgg cct tgt ccc tca gcc ctc gac tagctcctgg    1652
165 Gly Pro Arg Gly Gly Trp Pro Cys Pro Ser Ala Leu Asp
166             505                 510                 515
168 ggctggagcc agtgccaatg gccatcacca gttgcctggc tatgtgaagc atggttccat    1712
169 ttctgagaac tcattgcctt catctggccc agagcctggc accaaagatg acgggtatct    1772
170 caatggctct ggactttatg agccaatggt tggggaacag ccccctccac tcctggagga    1832
171 ggagagagag acagtcatgt gacccatatc                                    1862
173 <210> SEQ ID NO: 2
174 <211> LENGTH: 1863
175 <212> TYPE: DNA
176 <213> ORGANISM: Didelphoidea
178 <220> FEATURE:
179 <221> NAME/KEY: CDS
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182 <400> SEQUENCE: 2
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184 gtggccccgt tggactcggc cctagggaac ggcggcg atg gga gcg ccc cgg atc    115
185                                             Met Gly Ala Pro Arg Ile
186                                               1                   5
188 tcg cac agc ctt gcc ttg ctc ctc tgc tgc tcc gtg ctc agc tcc gtc    163
189 Ser His Ser Leu Ala Leu Leu Leu Cys Cys Ser Val Leu Ser Ser Val
190             10                  15                  20
192 tac gca ctg gtg gat gcc gat gat gtc ata acg aag gag gag cag atc    211
193 Tyr Ala Leu Val Asp Ala Asp Asp Val Ile Thr Lys Glu Glu Gln Ile
194         25                  30                  35
196 att ctt ctg cgc aat gcc cag gcc cag tgt gag cag cgc ctg aaa gag    259
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RAW SEQUENCE LISTING          DATE: 05/04/2000
PATENT APPLICATION:  US/09/199,874B     TIME: 06:18:47

      Input Set : A:\Sequence
      Output Set: N:\CRF3\05042000\I199874B.raw


197 Ile Leu Leu Arg Asn Ala Gln Ala Gln Cys Glu Gln Arg Leu Lys Glu
198     40                  45                  50
200 gtc ctc agg gtc cct gaa ctt gct gaa tct gcc aaa gac tgg atg tca      307
201 Val Leu Arg Val Pro Glu Leu Ala Glu Ser Ala Lys Asp Trp Met Ser
202 55                  60                  65                  70
204 agg tct gca aag aca aag aag gag aaa cct gca gaa aag ctt tat ccc      355
205 Arg Ser Ala Lys Thr Lys Lys Glu Lys Pro Ala Glu Lys Leu Tyr Pro
206                 75                  80                  85
208 cag gca gag gag tcc agg gaa gtt tct gac agg agc cgg ctg cag gat      403
209 Gln Ala Glu Glu Ser Arg Glu Val Ser Asp Arg Ser Arg Leu Gln Asp
210             90                  95                  100
212 ggc ttc tgc cta cct gag tgg gac aac att gtg tgc tgg cct gct gga      451
213 Gly Phe Cys Leu Pro Glu Trp Asp Asn Ile Val Cys Trp Pro Ala Gly
214         105      .           110                 115
216 gtg ccc ggc aag gtg gtg gcc gtg ccc tgc ccc gac tac ttc tac gac      499
217 Val Pro Gly Lys Val Val Ala Val Pro Cys Pro Asp Tyr Phe Tyr Asp
218     120                 ·125                 130
220 ttc aac cac aaa ggc cga gcc tat cgg cgc tgt gac agc aat ggc agc      547
221 Phe Asn His Lys Gly Arg Ala Tyr Arg Arg Cys Asp Ser Asn Gly Ser
222 135                 140                 145                 150
224 tgg gag ctg gtg cct ggg aac aac cgg aca tgg gcg aat tac agc gaa      595
225 Trp Glu Leu Val Pro Gly Asn Asn Arg Thr Trp Ala Asn Tyr Ser Glu
226                 155                 160                 165
228 tgt gtc aag ttt ctg acc aac gag acc cgg gaa cgg gaa gtc ttt gat      643
229 Cys Val Lys Phe Leu Thr Asn Glu Thr Arg Glu Arg Glu Val Phe Asp
230             170                 175                 180
232 cgc ctc gga atg atc tac act gtg ggc tac tcc atc tct ctg ggc tcc      691
233 Arg Leu Gly Met Ile Tyr Thr Val Gly Tyr Ser Ile Ser Leu Gly Ser
234         185                 190                 195
236 ctc act gtg gct gtg ctg att ctg ggt tac ttt agg agg tta cat tgc      739
237 Leu Thr Val Ala Val Leu Ile Leu Gly Tyr Phe Arg Arg Leu His Cys
238     200                 205                 210
240 acc cga aac tac att cac atg cat ctc ttc gtg tcc ttt atg ctc cgg      787
241 Thr Arg Asn Tyr Ile His Met His Leu Phe Val Ser Phe Met Leu Arg
242 215                 220                 225                 230
244 gct gta agc atc ttc atc aag gat gct gtg ctc tac tcg ggg gtt tcc      835
245 Ala Val Ser Ile Phe Ile Lys Asp Ala Val Leu Tyr Ser Gly Val Ser
246             235                 240                 245
248 aca gat gaa atc gag cgc atc acc gag gag gag ctg agg gcc ttc aca      883
249 Thr Asp Glu Ile Glu Arg Ile Thr Glu Glu Glu Leu Arg Ala Phe Thr
250             250                 255                 260
252 gag cct ccc cct gct gac aag gcg ggt ttt gtg ggc tgc aga gtg gcg      931
253 Glu Pro Pro Pro Ala Asp Lys Ala Gly Phe Val Gly Cys Arg Val Ala
254         265                 270                 275
256 gta acc gtc ttc ctt tac ttc ctg acc acc aac tac tac tgg atc ctg      979
257 Val Thr Val Phe Leu Tyr Phe Leu Thr Thr Asn Tyr Tyr Trp Ile Leu
258     280                 285                 290
260 gtg gaa ggc ctc tac ctt cac agc ctc atc ttc atg gct ttt ttc tct     1027
261 Val Glu Gly Leu Tyr Leu His Ser Leu Ile Phe Met Ala Phe Phe Ser
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                    RAW SEQUENCE LISTING              DATE: 05/04/2000
                    PATENT APPLICATION:  US/09/199,874B      TIME: 06:18:47

                    Input Set : A:\Sequence
                    Output Set: N:\CRF3\05042000\I199874B.raw

262 295                    300                    305                    310
264 gag aaa aag tat ctc tgg ggt ttc aca tta ttt ggc tgg ggc ctc cct      1075
265 Glu Lys Lys Tyr Leu Trp Gly Phe Thr Leu Phe Gly Trp Gly Leu Pro
266                    315                    320                    325
268 gcc gtg ttt gtc gct gtg tgg gtg acc gtg agg gct aca ctg gcc aac      1123
269 Ala Val Phe Val Ala Val Trp Val Thr Val Arg Ala Thr Leu Ala Asn
270                    330                    335                    340
272 act gag tgc tgg gac ctg agt tcg ggg aat aag aaa tgg atc ata cag      1171
273 Thr Glu Cys Trp Asp Leu Ser Ser Gly Asn Lys Lys Trp Ile Ile Gln
274                345                    350                    355
276 gtg ccc atc ctg gca gct att gtg gtg aac ttt att ctt ttt atc aat      1219
277 Val Pro Ile Leu Ala Ala Ile Val Val Asn Phe Ile Leu Phe Ile Asn
278        360                    365                    370
280 ata atc aga gtc ctg gct act aaa ctc cgg gag acc aat gca ggg aga      1267
281 Ile Ile Arg Val Leu Ala Thr Lys Leu Arg Glu Thr Asn Ala Gly Arg
282 375                    380                    385                    390
284 tgt gac acg agg caa cag tat aga aag ctg ctg aag tcc acg cta gtc      1315
285 Cys Asp Thr Arg Gln Gln Tyr Arg Lys Leu Leu Lys Ser Thr Leu Val
286                395                    400                    405
288 ctc atg ccg cta ttt ggg gtg cac tac atc gtc ttc atg gcc acg ccg      1363
289 Leu Met Pro Leu Phe Gly Val His Tyr Ile Val Phe Met Ala Thr Pro
290        410                    415                    420
292 tac aca gaa gta tca ggg att ctt tgg caa gtc caa atg cac tat gaa      1411
293 Tyr Thr Glu Val Ser Gly Ile Leu Trp Gln Val Gln Met His Tyr Glu
294        425                    430                    435
296 atg ctc ttc aat tca ttc cag gga ttt ttc gtt gcc att ata tac tgt      1459
297 Met Leu Phe Asn Ser Phe Gln Gly Phe Phe Val Ala Ile Ile Tyr Cys
298        440                    445                    450
300 ttc tgc aat gga gag gta caa gca gag atc aag aag tca tgg agc cga      1507
301 Phe Cys Asn Gly Glu Val Gln Ala Glu Ile Lys Lys Ser Trp Ser Arg
302 455                    460                    465                    470
304 tgg acc ctg gcc ttg gac ttc aag cgg aag gcc cgg agt ggc agc agt      1555
305 Trp Thr Leu Ala Leu Asp Phe Lys Arg Lys Ala Arg Ser Gly Ser Ser
306                475                    480                    485
308 acc tac agc tat ggc ccc atg gtg tca cat aca agt gtc acc aat gtg      1603
309 Thr Tyr Ser Tyr Gly Pro Met Val Ser His Thr Ser Val Thr Asn Val
310        490                    495                    500
312 gga cct cga ggg ggg ctg gcc ttg tcc ctc agc cct cga cta gct cct      1651
313 Gly Pro Arg Gly Gly Leu Ala Leu Ser Leu Ser Pro Arg Leu Ala Pro
314        505                    510                    515
316 ggg gct gga gcc agt gcc aat ggc cat cac cag ttg cct ggc tat gtg      1699
317 Gly Ala Gly Ala Ser Ala Asn Gly His His Gln Leu Pro Gly Tyr Val
318        520                    525                    530
320 aag cat ggt tcc att tct gag aac tca ttg cct tca tct ggc cca gag      1747
321 Lys His Gly Ser Ile Ser Glu Asn Ser Leu Pro Ser Ser Gly Pro Glu
322 535                    540                    545                    550
324 cct ggc acc aaa gat gac ggg tat ctc aat ggc tct gga ctt tat gag      1795
325 Pro Gly Thr Lys Asp Asp Gly Tyr Leu Asn Gly Ser Gly Leu Tyr Glu
326                555                    560                    565
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY   DATE: 05/04/2000
PATENT APPLICATION: US/09/199,874B   TIME: 06:18:48

Input Set : A:\Sequence
Output Set: N:\CRF3\05042000\I199874B.raw

L:724 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8